

PESCATOURISM—A EUROPEAN REVIEW AND PERSPECTIVE

Wojciech PIASECKI^{1*}, Zbigniew GŁĄBIŃSKI¹, Patrice FRANCOUR², Paweł KOPER³, Gianna SABA⁴, Agustín MOLINA GARCÍA⁵, Vahdet ÜNAL⁶, Paraskevi K. KARACHLE⁷, Audrey LEPETIT^{2,8}, Raphael TSERVENIS⁵, Zafer KızıLKAYA⁹, and Konstantinos I. STERGIOU^{7,10}

¹*Faculty of Geosciences, University of Szczecin, Szczecin, Poland*

²*ECOMERS, University Côte d'Azur, CNRS, Nice, France*

³*Skagen Sandblæseri & Skibsservice, Frederikshavn, Denmark*

⁴*PescaTour, Cagliari, Sardegna, Italy*

⁵*Department of Surveying and Cartographic Engineering, Politechnic University, Madrid, Spain*

⁶*Faculty of Fisheries, Ege University, Bornova, İzmir, Turkey*

⁷*Institute of Marine Biological Resources and Inland Waters, Hellenic Centre for Marine Research, Anavyssos Attiki, Greece*

⁸*Association Planète Mer, France*

⁹*Mediterranean Conservation Society, Urla, İzmir, Turkey*

¹⁰*Laboratory of Ichthyology, Department of Zoology, School of Biology, Aristotle University, Thessaloniki, Greece*

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Abstract. Pescatourism is a relatively new concept of merging tourism with fisheries. Its intention is to supplement incomes of fishermen and their families in the situation of declining living resources of the sea and to provide an attractive activity for tourists visiting the sea coast. Pescatourism should be considered different activity from fisheries tourism, or recreational fishing (including charter fishing), which usually denote angling. It also contributes to the education of the society and public awareness about the state and problems of the marine sector, including ecosystems, and experiencing the traditional fishing culture. This new activity first started in Italy in 1982 and soon spread to other Mediterranean countries. Pescatourism can be considered a branch of sustainable tourism and an activity parallel to agrotourism. This essay provides an overview of pescatourism (and related activities) in European countries (Italy, France, Spain, Portugal, Greece, Cyprus, Germany) with additional examples from elsewhere. Chances for implementing pescatourism in other countries are analysed (Turkey, Algeria, Poland). Despite all these positive features, it can easily be a commercial activity which does not provide any benefits to fishers and sustainability of marine living resources if the licence right is given to charter operators rather than to fishers.

Keywords: pescatourism, sustainable tourism, marine ecotourism, Mediterranean, Zeesboot, public awareness

INTRODUCTION

World fisheries, particularly marine fisheries, face many dangers in recent decades. One of the major problems of this sector has been the overexploitation of the living resources (Mullon et al. 2005, Christensen et al. 2014, Vasilakopoulos et al. 2014). The establishment of the exclusive economic zones by virtually all coastal

nations drastically limited uncontrolled fishing. This really helped to preserve the dwindling stocks, but on the other hand translated into liquidation of numerous high-sea fisheries fleets and caused unemployment of thousands of professionals. In some countries, like Poland, the entire occupational group of high-sea fishermen practically ceased to exist. Many of those people represented local,

* Correspondence: Prof. dr hab. Wojciech Piasecki, Wydział Nauk o Ziemi, Uniwersytet Szczeciński, ul. Mickiewicza 16, 70-383 Szczecin, Poland, phone: +48 91 444 2483, e-mail: (WP) wojciech.piasecki@zut.edu.pl, wojciech.piasecki@univ.szczecin.pl, (ZG) zbyszek@globtour.pl, (PF) francour@unice.fr, (PK) koop1337@gmail.com, (GS) gianna.pescatour@gmail.com, (AMG) agustin.molina@upm.es, (VÜ) vahdetunal@gmail.com, (PKK) pkarachle@hcmr.gr, (AL) audrey.lepetit@planetemer.org, (RT) raphaeltservenis@gmail.com, (ZK) kizilkaya.zafer@gmail.com, (KIS) kstergio@bio.auth.gr, kstergio@hcmr.gr.

usually coastal, communities and their unemployment had a profound socio-economic impact (Buckworth 1998).

Overexploitation of the living resources may lead to drastic, possibly irreversible changes in marine ecosystems (Stergiou 2002, Pauly et al. 2005). Traditional fishing practices compromise natural mechanisms of regeneration of fish populations. The dwindling resources call for a change towards sustainable fisheries using sound fisheries management (Pauly et al. 2002). Other remedies include, ecosystem-based fisheries management, improved legislation, establishment of marine protected areas, fish farming and ranching, awareness campaigns, etc. (Di Franco et al. 2016). Not all measures of the proposed policies are feasible. For example, imposing catch limits does not seem to solve all problems, but it certainly generates new ones. In many cases, catch limits for a given fish stock are reached early in the fishing season, which causes employment instability, decrease in profitability, and, ultimately, drastic limitations of number of jobs in the fisheries sector.

Finding a reasonable way of merging the fisheries sector with the touristic market could be a solution to those problems and could not only limit excessive exploitation of the resources but also create an alternative source of income for fishermen, their families, and also other people traditionally associated with the fisheries sector.

One of the contemporary problems of our civilization is the urge of finding a reasonable balance between human activities and preservation of the environment for the sake of future generations. It particularly concerns socially and ecologically vulnerable areas, known for their, often conflicting, socio-economic activities. In many countries, the coastal zones can be undoubtedly considered such areas. It is commonly known that coastal zones have been for decades among destinations most intensively targeted by tourists. According to the United Nations Environment Programme (UNEP) 63% of European holidaymakers prefer the coast as their vacation destination (Anonymous 2009a). In Europe this phenomenon has reached unprecedented proportions and in some coastal areas tourism has been considered the largest segment of the local economy (Budzych-Tabor et al. 2014). On the other hand, the world fisheries have been in crisis caused not only by overexploitation of the living resources, but also by progressing degradation of the marine environment, particularly in coastal areas (Islam and Tanaka 2004). The remedy to this problem are various protective measures, aimed at preventing marine environments from any further deterioration, but those activities often trigger social conflicts (Głabiński 2014). The imposed limitations in fisheries activities as well as the expansion of global mass tourism cause permanent social changes, which are explicitly negative for inhabitants of coastal zones. Because of the lack of their own investment capital and often conservative attitudes, local citizens are usually not capable of creating a reasonable competition for international hotel networks. Consequently, the local communities rarely participate in a considerable extent,

in the profits from tourist developments (Sharpley 2002, Harrill 2004, Andereck and Nyaupane 2011, Nyaupane and Poudel 2011).

One activity that seems to have a potential to solve the above-mentioned problems is sustainable tourism. It can be defined as a concept of visiting places without having negative impacts on the environment, society and economy (for a comprehensive review of the concept see Butler 1999). A detailed analysis of this definition shows us that sustainable tourism should be based on a harmony between the tourist activity, the environment, and the needs of local communities. In other cases local communities not only lack the investment capital but also the capacity to manage touristic operations like a daily boat tour.

Sustainable tourism, involving fisheries issues, was first implemented in Italy (Saba et al. 2013). Although it is difficult to define where the tourism focusing of fisheries started, it seems that it is probably as old as tourism itself. We cannot exclude that it independently appeared in different parts of the globe, at that time without a notion that a new concept was born. One of the documented cases of an early pescatourist was Charlie Chaplin who observed Japanese fishermen catching fish with the aid of cormorants. The Shogun Tokugawa (1543–1616) can be, however, considered a much earlier “pescatourist” because he allegedly liked to watch cormorant fishing on the Nagara River*.

The first part of the term pescaturism is the Italian term “pesca” meaning fish, so pescaturism literally means “fisheries tourism”. The latter term, however, may be confusing because it is often used to denote recreational fishing, which is in fact a different activity (see below). Therefore we refrain from a direct translation of Italian term *pesca-turismo* as fisheries tourism. We would like to emphasize the need of including pescaturism to the English language as a new specialized term.

Pescaturism as a defined concept was born in Italy and soon spread to other Mediterranean countries. In 1982 the Italian Government sanctioned the concept of pescaturism (as “pesca-turismo”) (Anonymous 1982) and provided the first legal definition of such operation: Pescaturism means boarding of non-fishermen, aged over 14, on fishing vessels with a recreational-tourism purpose (Saba et al. 2013). Along with the gradual increase of the numbers of tourist participating in such activities, more detailed regulations were implemented, defining and regulating all possible aspects related to the presence of non-crew persons on board of a fishing vessel.

DEFINITIONS

For the purpose of this work we define pescaturism and discriminate it from other, related activities. Our definition largely depends on the definition of fisheries itself in terms of its scope, targeted species, methods used, and gears involved. Fisheries can be marine or inland; wild or farmed; commercial, subsistence or recreational. Fisheries can target shellfish, finfish, reptiles (turtles,

* http://www.gifucvrb.or.jp/en/01_sightseeing/01_01.html.

snakes, crocodiles, etc.), amphibians, and even mammals (whales, dolphins, porpoises, seals, etc.).

The marine and inland fisheries are theoretically equally interesting for tourists, but inland fisheries are usually less attractive in terms of landscapes (seascapes), related infrastructure, etc. Capture of certain species, however, such as salmon, trout, sturgeons, wels etc. may have a good pescatourist potential if properly organized.

The attractiveness of farmed animals is rather limited for tourists. The final stage—their “harvest”—is usually not open for public and in many countries even media are prohibited from taking photographs or filming (WP, personal observation). Thus, the farmed segment of fisheries does not have a potential for pescatourism.

Slaughter of marine mammals and reptiles is for similar reasons an undesired performance. On the other hand, watching of those large charismatic animals in their natural ecosystems is a desired attraction (whale watching, turtle watching, crocodile watching, etc.). These events are often organized in the wild and generate an income, supplementing the budgets of local, often traditionally fisheries communities. Thus, watching events of marine organisms fit into the wider concept of pescatourism. Quite often however, the people involved do not represent traditional fisheries communities and therefore such activities would be very distant from the mainstream pescatourism.

For the purpose of this study we decided to exclude recreational fishing, regardless of its target species and/or fishing gears used. These are usually individual angling activities or organized trips for anglers. Recreational fisheries is now a big, well-developed segment of ecotourism and it is definitely not covered by the majority of definitions of pescatourism. Two other types of fisheries, namely commercial and subsistence, are eligible to host pescatourists.

In some countries, terms similar to pescatourism are used, but they denote fisheries tourism in a wider sense, usually angling (e.g., “turismo de pesca” in Brazil) (Anonymous 2010a). We must therefore emphasize that the term *turismo de pesca* in the Brazilian understanding is NOT the pescatourism in European sense!

Not all types of fishing and fishing gears are suitable for the purposes of pescatourism. For example trawlers, which are associated with some risk of accident, are not permitted to host tourists. The favoured tools for pescatourism are predominantly static fishing gears (e.g., gill nets or trammel nets), long lines, hand lines and harpoons (Saba et al. 2013). In some cases, traditional fishing (or whaling) does not exist anymore, but people are still interested how the vessels and rigs were once operated (e.g., *Zeesboote*, Germany; whaling vessels, Mystic Seaport, CT, USA, etc.).

After the initial success of pescatourism in Italy (Figs. 1–7), the involved fishermen and their families decided to broaden its scope. Now, tourists have an option to spend a day or more in the house of a fisherman, renting a room and having traditional and local meals with his family. What is also important, tourists may participate in everyday life of the landlord and witness the everyday routines, including

not only household chores, but also those in the fish store or those related to fixing the fishing gear. This new extended form of pescatourism is called *ittitourism* (*itti-turismo* = ichthyotourism) in Italy (Saba et al. 2013). The idea of this kind of tourist activity comes from the other well-known concept also based on exploring local social-cultural and natural resources—the agrotourism. The major difference between the agrotourism and ittitourism is that the latter is closely linked to coastal communities and the sea, while agrotourism is linked to agriculture and rural areas. The term *itti-turismo* (=ichthyotourism) has been perhaps confusing from the beginning, therefore it would be practical not to translate it to English but accept it as is (ittitourism).

EU INSTRUMENTS FOR PROMOTING, RESTRUCTURING, AND FINANCING FISHERIES

Europe is virtually surrounded by waters of the Exclusive Economic Zone (EEZ) of the European Union, stretching all the way from the Baltic Sea to Cyprus (with the exception of Norway and Island). This EEZ covers some 25 million km². The EU fisheries sector employs some 123 000 fishermen (in 2012) on 85 154 vessels (in 2015) of different size. Additional 80 000 people work in the European aquaculture sector. In 2013 it provided 6.05 million tonnes of fish, of which some 20% were provided by aquaculture (Anonymous 2016a).

EU member states developed the Common Fisheries Policy to govern issues related to fisheries, aquaculture, and seafood processing. This policy sets catch quotas of individual member countries and indirectly, through its financial tools, influences e.g., the number of vessels etc. The recovery and improvement of the European economy until year 2020 has been supported by five structural investment funds. One of them is the European Maritime and Fisheries Fund (EMFF) for 2014–2020, which replaced the European Fisheries Fund (EFF) for 2007–2013). “Its EUR 6.4 billion budget (5.7 billion of which are allocated to and managed by the Member States under shared management) is focused not only on underpinning the new Common Fisheries Policy (CFP) and making fisheries and aquaculture more sustainable and profitable but also on diversifying local economies for the sustainable development of maritime regions and inland fisheries and aquaculture areas” (Anonymous 2016a). One of the six main priorities of the EMFF is the sustainable fisheries. This priority is intended to allocate 26.9% of its assets to sustainable fisheries, “to strike a balance between human fishing capacity and available natural resources, to fish more selectively and to reduce unintended catches” (Anonymous 2016a). The proportion of the use of EMFF for different individually defined objectives within member states may vary, but regardless of that, within the budget, funds are allocated for the development of pescatourism. However, the investment of these funds greatly depends, apart from the available infrastructure, on current regulations, demand of the tourist sector but also on the positive attitude of the decision makers and the fishermen.



Fig. 1. Tourists queuing up to board a pescatourist boat; Sardinia, Italy (Photo by Chris Lawrence)



Fig. 2. Tourists watching a fisherman retrieving the net; Sardinia, Italy (Photo by Gianna Saba)



Fig. 3. Fisherman instructing young tourists about the fishing gear and the catch; Sardinia, Italy (Photo by Chris Lawrence)



Fig. 4. Tourists removing the catch from the net; Sardinia, Italy (Photo by Tonino Morra)



Fig. 5. A short stopover in the trip; Sardinia, Italy (Photo by Chris Lawrence)



Fig. 6. Fisherman's wife in the boat's galley, preparing a meal for tourists; Sardinia, Italy (Photo by Tonino Morra)



Fig. 7. Tourists eating redfish, captured during the cruise; Sardinia, Italy (Photo by Gianna Saba)

OVERVIEW OF PESCATOURISM IN EUROPE*

Many fisheries organizations throughout Europe (and adjacent areas), influenced by a successful Italian example of pescatourism, have been interested in implementing this activity in their own coastal area. Even though this concept is backed by mostly positive arguments and is an excellent way to promote not only local fisheries but also local culture and customs—quite often it faces legal barriers and consequently in many countries such an activity is illegal. Bureaucracy does not often keep up with the reality and also in this particular case the regulations have not considered the needs of local fishermen for a tourist activity. Quite often innovative projects require very extensive consultations and suitable legal frameworks. Marine issues such as navigation, fisheries, diving, environmental concerns, in certain extent overlap and their different aspects are regulated by different laws. Any fundamental change, like in this case introduction of a brand new concept, requires decentralized efforts and positive attitude of the decision makers. An overview of the legal background of pescatourism in individual countries has recently been provided by the FARNET—an organization made up by experts, officials, and representatives of different EU economy branches, all concerned about implementation of the priority axis 4 of the European Fisheries Fund. The main goal of the FARNET has been to promote the priority axis 4 of the EFF in the EU fisheries initiatives. The FARNET overview, published in a special issue of their magazine entitled: “Linking fisheries to the tourism economy”, covered 21 European countries (Janot and O’Hara 2013).

Only three European countries—Italy, France, and Greece—have effective legislature pertaining to pescatourism. Two additional countries, Spain and Cyprus, have initiated their efforts to create legal framework for pescatourism. Information on them will be elaborated further in the text, as separate chapters (Anonymous 2013a).

Pescatourism in Italy. The term pescatourism was defined for the first time in Italy in 1982 (Anonymous 1982), but the first official national regulation was approved in 1992 (Anonymous 1992). Unfortunately this regulation was very simplified and at the same time very restrictive as well (for example, it was regulating the minimum age limit of at least 14 years old in order to embark) and constituted a significant obstacle for the fisherman who could not have the opportunity to earn an adequate profit. In fact, it took seven years to develop a more advanced regulation, which was published the Decree No. 293 of the Ministry for Agricultural and Forestry Policies of 13 April 1999 (Anonymous 1999), under which the activity is now regulated. However, this Decree was later modified from the Legislative Decree No. 4 of 9 January 2012 (Anonymous 2012a) and substituted by the National Law No. 134 of 7 August 2012 Part 1, Art. 2.2 (Anonymous 2012b), which firstly, removed the earlier-imposed percentage limit in pescatourism income of a fisherman as since then, the activity became a part of professional fishing (Saba et al. 2013).

Pescatourism has been developed with the aim of protecting the marine resources, limiting coastal erosion and degradation of coastal environment and lagoons, reducing over-fishing negative impact, promoting the consumption of lesser known species, enhancing old fishing methods, fostering generational change, integrating the most vulnerable groups in the labour market, increasing female participation, limiting the loss of plant- and animal biodiversity, as well as the cultural variety (Saba 2015).

Deciding for a pescatourism trip means for a tourist to board a real fishing boat, to observe the daily professional fishing operations, and to participate in activities that take place on board, as touching the instruments on board, using the fishing rods, sea bathing, participating in the cooking activities, and discovering at the same time the local gastronomic traditions. It is a mix of adventure, sustainable

* This chapter, in addition to continental Europe also covers adjacent areas geographically representing northern Africa and western Asia.

ecotourism, active participation, discovery of the treasures of a natural environment, tasting products of the local seafood cuisine. All of the above activities fit into the category of active and adventurous tourism as opposed to the static “sea-sun-sand” tourism (Saba et al. 2007). On the other hand, pescatourism offers to the fishermen the opportunity to improve the image of their profession, and to the coastal communities—the tool to promote local social identity.

Pescatourism activities may be carried out by individual vessel owners, fishermen cooperatives, or consortia. The fishermen are required to have a valid fishing licence, registered fishing vessel, and authorisation to operate within coastal- or short-range fisheries zone. Vessels taking tourist on board must meet certain safety standards and must be equipped properly. Only certain types of fishing vessels are permitted to engage in this type of activity. Static nets (gillnets), longlines, spears, etc. are allowed but not trawl nets. The latter must be removed before a ship is allowed to board non-professionals. The number of visitors per professional fishing boat is limited to a maximum of 12 and all of them they must be insured. Any income earned by the boat owner related to this activity is subject to tax. The taxation on fishing profession is 10% and since the approval of the decree No. 4 of 2012 (Anonymous 2012a), the same figure applies for the pescatourism activities. The fish and shellfish acquired during fishing operations are subject to national sanitary regulations. The activity can be carried all year long, at daytime or at night. No accommodation is required for night-time trips. The wind force should not exceed the Beaufort scale 2 and the tourist should be brought back to the port of departure. Children under the age of 14 are allowed on board only when accompanied by an adult (Saba et al. 2013).

In 2004 Italian enthusiasts of pescatourism established the PescaTour*—a national association that promotes and enhances several activities related to fisheries, particularly the pescatourism and ittitourism. Since 2010, it is an important partner of the Eastern Sardinia Coast Action Group** (GAC SO). The principal goal of the PescaTour*** is to give support and advice to fishing businesses and coastal communities. The association also provides necessary information related to legal issues of pescatourism and promotes this initiative in media, on seminars, conferences and trade fairs (PescaTour). The PescaTour web page hosts web pages of eleven pescatourism enterprises: Cooperativa Pontillo, Scilla, Calabria; Il Vecchio e il Mare, Grottammare, Marche; Franco Franchi, Golfo Aranci, Sardinia; Cooperativa Sampey Mare Blu, Villasimius, Sardinia; Cooperativa San Macario, Pula, Sardinia; I due fratelli [two brothers], Sant’Antioco, Sardinia; Nuova Antonina, Sant’Antioco, Sardinia; Oasi Azzurra, Sant’Anna Arresi, Sardinia; Mario Balzano, Stintino, Sardinia; Christian I, Arbatax, Sardinia; Paolo Fanciulli, Talamone, Toscana). Some of those cooperatives/individuals specialize also in ittitourism.

The pescatourism activity in Sardinia is very well developed and it may constitute an example and best practice for other European nations and regions (Janot and O’Hara 2013). At present, the association PescaTour and the Fisheries Local Action Group (FLAG) of Eastern Sardinia are working together in order to present a European legislation draft on pescatourism (through the Network of cooperation *Rete tematica del pescaturismo* whose members include several Italian and European FLAGs) to ensure that all coastal fishing communities can reap the same benefits and through the application of best practices applied in Italy in order to bridge the gap of experience gained in the last two decades.

Pescatourism has been developing also in other locations in Italy. Meneghello and Mingotto (2016), for example, analysed the potential of the Venetian coast for developing pescatourism. They also listed regions in Italy, in addition to best known Sardinian examples, where this type of tourism successfully developed (Orbetello, Tuscany; Egadi Islands, Sicily).

Socio-economic impacts of pescatourism in Italy were first studied by Mamone et al. (1998). The recent work of Maria Bonaria Lai (Lai et al. 2016) represented the first scientific contribution analysing the satisfaction of tourist that participated in a pescatourism activity. This research illustrated that out of a sample of 105 tourists that were surveyed in Sardinia, 82% assigned the maximum score of satisfaction. Demonstration of fishing (activities carried out linked to fishing); land excursion (activities carried out not linked to fishing); traditional recipes used to prepare the fish for lunch (food experience) were the most significant attributes in shaping overall satisfaction level (Lai et al. 2016).

Pescatourism in France. In France, the occasional embarkation of passengers on vessels outfitted for professional fishing has been practised in a traditional way, without a specific regulatory framework, until 2006. Indeed, the passengers boarding was banned in May 2006 due to a tragic event. The chairman of the local fisheries committee of Audierne (Brittany, France), a professional fisherman, and his passenger, the CEO of a French international company, Edouard Michelin, died during an outing at sea. The exercise of this activity thus saw a turning point in the regulatory framework following this dramatic event. In addition, the regular implementation since 2001 of the national Fisheries Security Plan has made this kind of activity more and more complicated.

Now, the pescatourism activity is therefore a legally regulated activity and can only be practised under well-defined conditions. As a result, the owners of professional fishing- or fish-farming vessels must, first of all, hold an authorization on their navigation permit issued by the Departmental Directorate of Territories and the Sea (DDTM)**** on the basis of the information transmitted by the fisherman. This legal framework has been gradually implemented since 2007.

* <http://www.pescatour.net>.

** Gruppo di Azione Costiera Sardegna Orientale.

*** Not to be confused with *Pescatour* in Chile (<http://www.pescatour.cl>) or with *Pescatours* in Spain (<http://www.pescatours.com>) specializing in angling trips.

**** Direction Départementale des Territoires et de la Mer.

The first step in 2007 was the creation of a network of people operating pescatourism activities along the Atlantic and French Mediterranean (Provence-Alpes-Côte d'Azur and Corsica) coasts. This network has been initially proposed by the Association of Great Atlantic Coastline (AGLIA*) and the Cooperation of Mutualisation and Maritime Credit (CMCM**) in the framework of the DEFIS*** project (Chaubouard 2007). This network acted as a true force of proposal, allowing the implementation of the first legal framework for the pescatourism activity in France, through the drafting by the Directorate of Maritime Affairs (DAM****) of first memoranda of service, the note of 11 January 2007 (a memo for internal use) about the carriage of passengers on fishing vessels of less than 24 metres. Nevertheless, this note did not constitute a permanent legal framework for the activity, but it provides a framework for the occasional embarkation of passengers onboard of fishing vessels shorter than 24 m (Baranger et al. 2012). Following the increasing demand to practice multiple activities and the success of the first pescatourism experiments, a second note has been drafted on 20 July 2007 (a memo for internal use). It extends the previous note to all the fishing vessels which carry eco-tourist passengers (Baranger et al. 2012).

A permanent legal framework has been proposed only in 2011 throughout the ministerial decree of 9 May 2011 (Anonymous 2011) and of 13 March 2012 (Anonymous 2012g) which amended the decree of 23 November 1987 (Anonymous 1987) on the vessel safety (Table 1).

In the Mediterranean Sea, as well as in the Atlantic, the development of pescatourism has been mainly strengthened by the pilot project *Pescatourisme 83* carried out by the association "Marco Polo échanger autrement" over a three years period (2009–2011). This is an experimental project

set up on a pilot territory, the Var department (Fig. 8), selected for three main reasons:

- The main stakeholders have involved themselves from the start of the project;
- This department is representative of artisanal, traditional and coastal small-scale fisheries in Mediterranean (98% of vessels are smaller than 12 metres);
- The Var Department is the first touristic department of France (10 millions of tourists per year) (Bellia and Collombon 2011).

The first year of experimentation focussed only on vessels over 7 m in length with two crew members (the fisherman and a deckhand), because the current regulations excluded the smaller vessels. The latter have been involved in the project only after 2010 when the less than 7 metres vessels working with a single crew member have been considered in the circular note of 8 July 2010 (Bellia and Collombon 2012). One of the main obstacles to the development of this type of activity during the project was clearly the legal and specific framework on pescatourism.

In order to guarantee, in time, the primary objectives of the diversification and promotion of the professional fishery, a charter of the activity has been built and the brand *Pescatourisme*, property of the fishing world, has been deposited with the French National Institute of Industrial Property (INPI)*****.

From a taxation point of view, pescatourism is not subject to VAT if the fishermen's activity fits within the same tax interval as their fishing activity, provided that their annual revenue from pescatourism does not exceed EUR 32 000 and does not account for over 50% of their annual income. As a result, it is indeed a matter of

Table 1

Comparison of the legal framework regulating the pescatourism activity in France

May 9th 2011 Ministerial Decree		March 13th 2012 Ministerial Decree	
Section 230-13; fish farming boat		Section 227-10; fishing boat <12m	Section 226-9; fishing boat between 12 and 24 m
Amendment of the decree of November 23th 1987 on the vessel safety			
Prohibition on board vessels engaged in dredging outside fish farming parks	Prohibition on board ships engaged in dredging, trawling and seaweed collecting	Prohibition on board ships engaged in dredging, beam trawling and seaweed collecting	
No information	Maximum of 12 passengers		
Free space delimited of 0.5 m² by passenger, protected from the full force of the sea			
Minimum height (1 m) of the edge of the boat where passengers are seated or availability of a removable lifeline		Minimum height (1 m) of the edge of the boat where passengers are seated	
Sitting place of at least 0.45 m width per passenger			
Toilets + washbasin compulsory after 6 h of departure	Toilets compulsory after 6h of departure		
Sufficient safety equipment (life jackets, high frequency radio etc.)			

* Association du Grand Littoral Atlantique.

** Coopération de la Mutualisation et du Crédit Maritime.

*** Développement, emploi, formation, innovation sociale (Development, employment, training, social innovation).

**** Direction des Affaires Maritimes.

***** Institut National de la Propriété Industrielle.

diversifying fishing activity and not of reconversion. It is important to note that the Marco Polo experimental project strongly helped to design and to orient the evolution of the legal framework of pescatourism practice in France.

Several projects allowed to launch and to develop the pescatourism activity along the Atlantic and French Mediterranean coasts: *Equal/DEFIS* (2006–2007), *PRESPO* (2009–2011), *Pescatourisme 83* (2009–2011), and *PescAtlantique* (2012–2013 and 2014–2015). The main activities proposed are embarkation on fishing vessels to share experience in small-scale fishery (Table 2). The others activities concern visits of fish farm, fish auction or fish market, thematic workshops, and trips along the coast. The main objective is to explain to tourists the different stages of fish processing, from the catch to the tasting, and to promote fish and the fisheries sector.

Once the experimental projects were completed, a decrease in the number of vessels practising pescatourism has been observed (Table 2). The regulation, considered too restrictive by the fishermen, pushes them to stop the activity of pescatourism. In Charente-Maritime (France, Atlantic coast), the argument put forward to justify the absence of demand for collective development and the cessation of pescatourism by certain shellfish farmers was the obligation of training requested by the Interregional Directorate of the Sea in South Aquitaine* (DIRM SA). However, it is interesting to note that pescatourism practised in the Arcachon Bay and Basque-Sud Landes Region is still in progress.

To date, the activity of pescatourism in the French Mediterranean is decreasing as fewer and fewer fishermen

practice this activity on a regular basis. This decrease, as for other French regions, is due to compulsory regulations, considered by fishermen as too costly (training, medical skills, etc.).

Regionally, the presence of a fishing activity can constitute an important factor in attracting tourism, generating substantial positive incomes for the whole local economy (catering, accommodation, souvenirs) and thus contributing to the economic development of this region.

In France, pescatourism is part of a sustainable local development for maritime space and constitutes a real diversification of the fishing activity resulting in a reduction of the fishing effort as well as additional income for the fishermen and fish farmers. This activity is clearly different from the transport of passengers by decommissioned fishing vessels. Indeed, the person on board is not authorized to fish but justifies his/her presence by the desire to discover the profession of fisherman. Thus, pescatourism contributes to the valorisation of the profession and the image of the fisherman but also to the public awareness.

Pescatourism in Greece. In Greece, pescatourism officially started on 10 April 2012, when Law No. 4070/2012 entitled “Arrangements on electronic communications, transport, public works and other provisions” (Anonymous 2012c) came into force. The 6th part of the Law and articles 174 through 184 refer to pescatourism (Αλιευτικός Τουρισμός). There the definition of this fishing activity in Greece is given (Art. 175), as well as the fact that was initiated through a scope of “the development, organization and supervision of the

Table 2

The main pescatourism activities in France with description of the services and prices per person for a day trip

	Region or location	Activities	Year of launch	Price [EUR]	The number of vessels involved in the activities				
					2010	2011	2012	2013	2014
Atlantic Ocean	Paimpol (Brittany)	Small scale fishery	2014	n/a	n/a	n/a	n/a	n/a	n/a
	Le Guilvinec - Haliotika (Brittany)	Small scale fishery; fish auction visits; thematic workshops; trips along coast	2000s	46	13	9	6	4	1
	Association des bolincheurs (Brittany)	Small scale fishery	2005	22	12 (since 2005)	12 (since 2005)	6	End of activity	—
	Charente -Maritime	Shellfish culture	2011	No charge	—	3	2	n/a	n/a
	Arcachon Bay	Small scale fishery	2010	45	4	n/a	n/a	11	n/a
		Shellfish culture	2010	45	11	n/a	n/a	13	n/a
	Côte Basque - Sud Landes	Small scale fishery	2011	No charge	—	1	n/a	6	n/a
Mediterranean Sea	Languedoc -Roussillon	Small scale fishery	2013	50	—	—	—	8 (only 2 active)	n/a
	Var Department	Small scale fishery	2009	60	n/a	n/a	n/a	10	n/a
	Bouches du Rhône Department	Small scale fishery	2013	60	—	—	—	2	n/a
	Corsica	Small scale fishery	2013	60	—	—	—	10	n/a

n/a = data not available.

* Direction interrégionale de la mer Sud-Atlantique–Aquitaine.

activities and small-scale entrepreneurship in the field of pescaturism, aiming towards the support of fisher's income and the local economy, the enrichment and diversification of the domestic tourism product and the increase of its attractiveness and competitiveness" (Art. 174). The remaining articles provide details regarding licensing (art. 176, 177, 181), who is considered as a pescaturist (Art. 178), spatio-temporal regulations, gear restrictions, and safety measures (Art. 179, 180), penalties (Art. 182), tax and insurance arrangements (Art. 183), and other general provisions (Art. 184). It is noteworthy that in Article 180, point 5, it is clearly stated that the fishery products of pescaturism belong to the fisher that can actually sell them, under the provisions stated by his/her professional license!

This law was further refined by the Article 40 of Law No. 4179/2013 (Anonymous 2013b), which mainly amended three points of Law No. 4070/2012:

- Further clarified the terms and procedures of pescaturism in Greece;
- Amended the penalties;
- Emphasized that all necessary actions for issuing a license would be regulated by a joint decision of four ministries (Ministry Economics, Ministry of Rural Development and Food, Ministry of Tourism, and Ministry of Maritime Affairs and Aegean).

This decision was issued on 20 January 2015, with a Joint Ministerial Decision of the ministers of Rural Development and Food, Tourism, and Maritime Affairs and Aegean (Anonymous 2015), but in practice came to force in May 2015, after a memo of the Ministry of Production Reconstruction, Environment and Energy, Directorate General of Sustainable Fisheries, Department of Fisheries Policy and Resources, 3rd Division.

The overall framework of the conditions for a fishing boat to be licensed for pescaturism, is summarized as follows:

- The total length of the vessel should be < 15 m;
- The fisher must have a License of Professional Fishing, operating with all types of gears except for bottom trawling and boat-seine;
- The vessel must have a Certificate of Seaworthiness and Security at Sea;
- The vessel must have adequate space for the passengers to be on board and perform the fishing activities;
- The fisher must follow all relative legislation regarding security at sea and hygiene.
- To date, more than 60 pescaturism licenses have been issued, under the aforementioned legal frame.

In the wake of this legal frame, two major initiatives from fishers launched:

- One in Corfu Island, by Nikos Syrigos and Spyros Thymis*, and
- Another one in Astro Kinourias-Peloponnese Peninsula, by George Lourdis**.

Both initiatives are supported by an electronic platform for booking online fishing trips in Greece. There also exist several Facebook pages (under the search query "Fishing Tourism in Greece") referring to pescaturism in various locations in Greece (e.g., Corfu, Skiathos, Paros, Naxos, Crete), providing useful information along with contacts for anyone interested in booking a fishing trip in Greek waters.

Pescaturism in Spain. The first experiences of pescaturism in Spain, understood as the "shipment of tourists in fishing boats", were carried out in 2004 in the "Cofradía de Pescadores" (local professional fishermen's association) of Lira (Galicia) with the aim of improving relationship with the socioeconomic local environment of the fishery community of Lira and to show the complexity of fishing to the society. When these first experiences take place, as well as in the development of two projects, called Suratlántico*** and Marimed***, both focused on the promotion of economic activities complementary to fishery to deal with problems derived from the reduction of the fishery resources, the lack of legal support for fishing-tourism is shown, since the State Law 3/2001 of Maritime Fishing (Anonymous 2001), that regulates professional fishing activity, does not include the possibility of carrying out this type of activities, clearly different from extractive fishing activity.

For this reason and in order to facilitate the diversification of the professional fishing sector by carrying out fishing tourism activities and specifically pescaturism, the SAGITAL Project (Figs. 9 and 10) was launched in 2005, developed by the Universidad Politécnica de Madrid within the framework of The EQUAL Community initiative of the European Social Fund (Molina García 2010).

One of the actions carried out in this project was a legal survey on the regulatory framework of professional fishing. The survey was entitled "Study on the legal ordering of fisheries-tourism: characterization of the activity, analysis of the current legal framework and proposed regulation". It was carried out by a team of lawyers from the Universidad Politécnica de Madrid and the Universidad Complutense de Madrid, and had two objectives: to identify the current legal impediments for pescaturism in Spain; and to propose for modification of the State Law 3/2001 on the Country's Maritime Fishing (Anonymous 2001).

The other action carried out in this project was a technical survey on the elements to be taken into account in fishing boats to adapt them for pescaturism. The survey was entitled "Technical study of the modifications to be implemented on fishing vessels for the development of pescaturism activities in Spain". It analysed adjustment measures in artisanal fleet in function of length of ships and fishing modality. This document considers all aspects related to safety on board, including rescue measures, recommended auxiliary equipment, maximum number of tourists and their safest location on board, etc.

* <http://fishingtrip.eu>.

** <http://fishingtrips.gr/en>.

*** Proyecto Suratlántico "Work dynamization in Protected Natural Areas of the Andalusian Coast", financed by the EQUAL Community Initiative (2002).

**** Proyecto Marimed "Fishing as a factor in the development of sustainable tourism", Financed under the Program INTERREG IIIB Medoc Community Initiative (2004).



Fig. 8. French artisanal fisherman practicing pescatourism in the Var Department (Photo by Patrice Francour)



Fig 9. Development of the pilot pescatourism experience in Cádiz, Spain (Proyecto SAGITAL) (Photo by Agustín Molina)



Fig. 10. Preparing the food on board after the pescatourism experience; Canary Islands Spain (Proyecto SAGITAL) (Photo by Agustín Molina)

These surveys were endorsed by representatives of the Spanish professional fishing sector through the “Lanzarote Declaration (Proyecto SAGITAL)”. This declaration is available as an annex to the strategic diagnosis of pescaturism in Spain (Molina García 2010). In January 2008 the results of two surveys were submitted to three Ministries: Ministry of Agriculture, Fisheries and Food; Ministry of Employment; Ministry of Development, responsible for Merchant Navy Authority, to start the process of legal change.

These works coupled with pressure from fishing sector, give rise to several actions of different parliamentary groups both in the Congress and in the Senate, in favour of carrying out legal changes to allow the development of pescaturism. Finally, in June 2013, a legislative proposal submitted by Popular Parliamentary Group of Congressman Jesús Caicedo, to develop a study on pescaturism, was approved.

The study was commissioned to the team of the Universidad Politécnica de Madrid who led the SAGITAL Project. The survey called “Strategic diagnosis of pescaturism in Spain”, analysed impediments for the development of pescaturism in Spain and proposed priority lines of action linked to the modification of the regulatory framework (Molina García 2013).

Finally, in December 2014, Law 33/2014 (Anonymous 2014) was published, which amends the State Law 3/2001 of Country’s Maritime Fishing (Anonymous 2001). It recognizes the importance of pescaturism for the diversification of fishing activity, and establishes the conditions for its development.

Parallel to this national process, the Autonomous Community of Catalonia approved the Decree 87/2012, of 31 July, on pescaturism, fishing and aquaculture tourism, and demonstrations of fishing in maritime waters (Anonymous 2012d). This Decree complied with the Law 2/2010, of 18 February, on Fishing and Maritime Action of Catalonia (Anonymous 2010b), which stated that the Catalan Government must promote the specific regulation of pescaturism and aquaculture. This Decree has served to ensure the developed of the first pescaturism experiences in Spain protected by a reasonable legal coverage. Some notable examples are described below.

In Roses (Girona), the project *Roses Vila Mariner*^{*} offered two different activities of pescaturism. The first one on board a trawler during a full fishing day, approximately 12 hours and with a cost of EUR 140. The second one on board a craft of minor gear, trammel and longline, for approximately 6 h and with a cost of EUR 95. This experience, considered as an example of good practices, has been based on the creation of a Centre for Pescaturism, which brings together all the activities carried out around fishing. The Centre is promoted by the Fishermen Guild of Roses and has the support of the City of Roses (through the Tourist Office and the transfer of training classrooms), and the Roses Cap de Creus

Boating Station (advice for the design and management of activities). The pescaturism activities have been carried out in 14 boats, 9 trawlers, and 5 artisanal fishing, during July, August, and September 2013, with 80 trips and more than 1000 visits to the port and the fish market.

In Cambrils (Tarragona)^{**}, the Centre of Pescaturism has been promoting full day trips. The 10 h trip is offered for EUR 154 on board of a trawler, and the boat can carry 4 tourists.

In Palamós (Girona)^{***} three kinds of trips are offered: shrimp fishing, lobster fishing (in trawlers), and artisanal fishing, with prices ranging from EUR 66 to EUR 88.

In April last year, the Autonomous Community of the Balearic Islands, following the model of Catalonia, issued the Decree 22/2016 (Anonymous 2016b), which regulates measures for the diversification of the fishing and aquaculture sectors in the Balearic Islands. Based on these regulations, the tourism fishing activities in this Community have begun to be developed. With prices ranging from EUR 65 per person on a craft boat up to less than EUR 150 in a trawler^{****}.

Finally, it is expected that in the next months a legislative Decree will be approved to regulate the Law 33/2014 (Anonymous 2014), which will establish the conditions for the development of pescaturism activity at the state level, currently in draft phase.

Pescaturism in Portugal. Tourism related to fisheries has been partially regulated in Portugal since 2007 and it has been practically limited to the autonomous region of the Azores (Molina García 2013). Portuguese marine tourism, in a wider sense, is based on the Decree No. 21/2002, issued on 31 January 2002, by the Ministry of Social Equipment (Ministério do Equipamento Social) (cited after Molina García 2013). The need for pescaturism, in a contemporary sense, has been specifically acknowledged by the Regional Legislative Decree 23/2007 approving the Regulation of Maritime and Tourist Activities of the Azores (RAMTA) (cited after Molina García 2013). Tourists were officially allowed on board of fisheries vessels mostly for the purpose of watching sperm whales and the regulation specified conditions needed for their safety and comfort. Licences are issued by the Regional Directorate of Fisheries for a period of 90 days. Further modifications, introduced by the Regional Legislative Decree No. 36/2008 of 30 July 2008 (Anonymous 2008) were prompted by the Ordinance No. 45/2009 of the Regional Secretariat of Environment and the Sea of 4 June 2009 (Anonymous 2009b). The Regional Legislative Decree No. 36/2008 established the legal framework for pescaturism in the Azores and in the Portuguese Exclusive Economic Zone (EEZ).

Decree No. 36/2008 defined aspects of the pescaturism operation such as: identification of the maritime-tour operator, the boat to be used, allowable area of operation, insurance policy, identification of the point of embarkation, fishing gear and group of species with authorized catch,

^{*} <http://rosesvilamarinera.com/es/index.php>.

^{**} http://www.pescaturismecambrils.com/assets/info_pescaturisme.pdf.

^{***} <http://pescaturismepalamos.org/index.php/es>.

^{****} <http://www.pescaturismomallorca.com>.

minimum crew size, maximum number of tourists to embark. Only registered commercial fisheries vessels are allowed. The number of tourists on a single boat should not exceed 12 and children under 16 must be accompanied by parents or legal guardians. The same regulation pertains also to the recreational tourism (angling) and it strictly specifies the amount of fish each tourist is allowed to take home (for personal consumption only). According to the Instruction provided by the Ordinance No. 45/2009 of the Regional Secretariat of Environment and the Sea of 4 June 2009 (Anonymous 2009b) each tour operator must have a registration book, not only for registering tourists but also for detailed registration of catch (fish) per person.

Pescatourism in Germany. There is only one example of pescatourism practiced once a year in the north-eastern coastal lagoons. For details see below (“The *Zeesboot* cruises”).

Pescatourism in Cyprus. Cyprus, similarly as its neighbours, has excellent natural conditions for this kind of activity. As in other countries, tourism related to fish and fishing in Cyprus can be divided in two different types of activity. The first type refers to “recreational fisheries/coastal tourism”, where tourists themselves on board of large touristic vessels are allowed to perform fishing activities, by means of trolling line, handline, longlines, etc. The number of such passengers (anglers) that can be accommodated on such vessels ranges from 5 to 50. Until 2013 there has been no specific regulations on fishing tourism though. According to FARNET Magazine (Anonymous 2013a) the first pilot project started in May 2013, under a permit from the Department of Fisheries and Marine Research. To allow tourist on commercial fisheries vessels on regular basis, the Regulatory Administrative Act 278/2012 (Anonymous 2012e) must be modified. To date approximately 40 such licenses have been issued (Nikolas Michailidis, personal communication). Examples of this type of pescatourism in Cyprus are the initiative of a company called Zygi Boat Adventures*, located in the Zygi Village (Larnaka District), and another one in Pafos** that offer “fishing trips” for tourists. Yet, the vast majority of vessel owner performing this type of fisheries tourism collaborate with local touristic agencies and hotels, or have booths in front of the vessel, providing information and booking options.

The second type (true pescatourism in our understanding) refers to cases where tourists join professional small-scale fishers on board traditional boats. Fishing gears that can be used in this activity are those mentioned in the professional license of the fisher, mainly static nets (trammel and gill nets). This initiative mainly aims to the diversification of the fishing activities of some fishers, as an alternative source of income, but also reducing the fishing pressure. The latter will be achieved by imposing more strict spatio-temporal restrictions, as well as gear restrictions (e.g., length of nets that can be deployed). This type of fisheries tourism (pescatourism) is not yet officially launched, but run in the past as a pilot

using 1–2 fishing vessels. The legal framework regulating issues on security, hygiene, and the terms and conditions of the potential applicants is still under discussion, but it is soon expected to be submitted to the Cypriot Parliament for approval (Nikolas Michailidis, personal communication). In addition, cost of modifications that the fishers may be required to do on the vessels, in order to be eligible for a pescatourism license, will be eligible for funding through the Operational Program “THALASSA” 2014–2020***.

In **Belgium, Germany, Denmark, Ireland, the Netherlands, Poland, and Slovenia** the current regulations do not allow tourists on board of active fisheries vessels during their operation (Anonymous 2013a). In those countries, however, fisheries local action groups (FLAGs) and other concerned fisheries organizations exert pressure on the authorities to allow pescatourism. In Germany such initiatives are blocked because of general regulations of marine transport. Changes however are inevitable because of the developing sector of offshore wind farms. The farms require specialized service and the employed servicemen are not marine professionals. Allowing such non-marine personnel on board of marine vessels will constitute a precedent that proponents of pescatourism could use for their cause. In Belgium, Denmark, the Netherlands, Poland, and probably also Ireland and Slovenia the decommissioned fishing cutters can be adapted to perform tourist activities. After required adaptations they cease to be fishing boats. Obviously, depending on the subsequent use of the boat they need to observe all maritime regulations, including safety equipment.

In **Sweden** and also in **Poland** regulations are really strict. Any non professionals admitted onboard are treated as passengers and consequently any vessel (including fishing vessels) that is allowed to accept them must meet standards of a passenger ship (Anonymous 2013a).

Other countries, from the list prepared by FARNET (Anonymous 2013a), such as, **Bulgaria, Estonia, Finland, Lithuania, Latvia, Romania, and the UK** have not excluded the possibility of pescatourism. Their national regulations, however, have not been specifically tailored for this type of activity. Consequently, the ships involved would need to meet strict safety-, accommodation-, and sanitary standards for both—the fisheries vessels and passenger ships at the same time. This could be very costly and would render the whole idea unprofitable. It should also be emphasized that the weather conditions in the countries on northern Europe are suitable for tourists only in few days per year. According to the most recent information pescatourism has been practiced on a small scale in the Danube Delta, Romania (Els and Kane 2017). The small company organizing the trips employ knowledgeable, enthusiastic people, who have tell tourists all they want to know about the Danube Delta, including fish, birds, and the fisheries. They also tell the tourists about a major problem of the Delta which is poaching (and the apparent lack of water police). The pescatourism company has motorboats especially outfitted

* <http://www.zygiboatadventures.com/>; <http://larnakaregion.com/page/fishing-at-zygi-village-an-authentic-cypriot-experience>.

** <http://larnakaregion.com/page/fishing-at-zygi-village-an-authentic-cypriot-experience>.

*** http://www.moa.gov.cy/moa/opf/opf2014.nsf/index_en?OpenDocument

to accommodate visitors (Fig. 11) and they seem to have some arrangement with local fishermen (Fig. 12). The tourist boat (Fig. 13) approaches fishermen at work and the fishermen tell them about their work and show their catch (Jolanta Kielpińska, personal communication).

Pescatourism outside Europe—a Japanese example.

In Japan we can find an example of a very spectacular form of pescatourism activity. In fact it is certainly much older than modern European initiatives and it is performed under different name. This tourist attraction is based on traditional cormorant fishing and the spectators are not on the same boat as the fishermen (which constitutes a slight modification of the definition we earlier assumed). Cormorant fishing is a traditional fishing method in which fishermen use trained cormorants to fish in rivers. Cormorants have a ring on their throat, so they can swallow only small fish. If the bird catches a bigger fish the fishermen forces it to spit the fish up. Cormorant fishing has been practiced in China and in Japan for more than 1300 years and has been an important item of oriental countries. In Japan this art of fishing called *ukai* has been still performed at 13 sites and what is important these days, *ukai* is held mainly as a tourist attraction*. The associated Japanese term *unomi* (“to swallow like a cormorant”) had received also its proverbial sense—meaning “to accept without questions”. This is an evidence of how the cormorant fishing had influenced the Japanese culture. According to *japan-guide.com* the best know sites of *ukai* are:

- Nagara River, Gifu City (11 May to 15 October);
- Hozu River, Arashiyama, Kyoto City (1 July to 23 September);
- Uji River, Uji City (1 July to 30 September).

The best known internationally has been the Nagara River *ukai*. The fishermen (cormorant masters) operate from wooden boats and each of them used up to a dozen cormorants. Cormorant dive on the sides of the boat and they are on a kind of leash, enabling their masters to force them back to the boat. Tourist can watch this performance from accompanying vessels. Such cruises typically operate daily during the season, with some exceptions when the water level is too high. They usually last one hour and the cost is 1500–3500 JPY (=13–31 USD) per person. The catching takes place at the evening. Each boat has a fire basket suspended on the bow (fishing fire lanterns) to attract the fish and make them visible for cormorants. The ceremony begins with three fireworks being set off in the sky. Each 13 m boat has three persons crew and the position of the fishing master is hereditary. Currently there are only six *usho* Cormorant Fishing Masters working the Nagara River, and their formal title is “Imperial Cormorant Fishing Master, Board of Ceremonies and Rituals, Imperial Household Agency”. The *ukai* equipment (122 pieces) has been considered an important tangible folk cultural asset of Japan**.

Tourist can book their tickets in the Cormorant Fishing Viewing Boat Office in Gifu City waterfront. The boats can carry up to 50 people and the boarding must be

completed at 1830 h. This tourist offer is supplemented by floating stores and restaurants and boats with dancers called *odoribune***.

The first notable person to watch *ukai* was the shogun Tokugawa Ieyasu (1543–1616) who allegedly enjoyed the cormorant fishing on the Nagara River. Another “celebrity” of his times was Matsuo Bashō (1644–1694) a famous Japanese poet. In modern times Charlie Chaplin visited Gifu City and enjoyed *ukai* two times.

Chances for implementing pescatourism in Turkey.

As one of the remedies for dwindling fish stocks, the (Turkish) Ministry of Food, Agriculture, and Livestock—General Directorate for Fisheries and Aquaculture, following the example of EU countries, started a buyback program of fisheries boats in 2012. One of the vessels decommissioned in the frames of this program was given to the Akyaka Municipality, adjacent to Gökova Bay, Aegean Sea. The intention of this donation was to propose an alternative source of income for fishermen and to boost local tourism by adopting the concept of pescatourism in Gökova Bay. This initiative was based on a partnership between the municipality and a local cooperative (Akyaka Fishery Cooperative) thanks to Mediterranean Conservation Society (AKD). Despite of a good example from other Mediterranean countries such as Italy where there is directive on pescatourism and very attractive location of the bay, it turned out, however, that the existing legal base and the related regulations do not permit any non-professional visitors on board of fisheries vessels. The Article 45 of the Commercial Fisheries Decree (Anonymous 2012f) states that only the professional fisher licence holders could aboard and perform fishery-related activities. Consequently, the concept of pescatourism could not be practically implemented anywhere in the Turkish seas. Turkey is not a federation like some other countries in Europe, so there were no options for local regulations making the needed exception. Therefore, the AKD as the owner of the project, in the cooperation with the Akyaka Fishery Cooperative and the Akyaka Municipality wanted to get permission from the responsible governmental bodies to start only a pilot project to show that certain modification of the existing regulations could make pescatourism legal. The arguments were explicit and convincing for the decision makers. It is evident, like elsewhere in the Mediterranean, that pescatourism could be an important alternative livelihood or additional income source for small-scale fishers in the coastal areas in Turkey. Such pilot project could show how extensive legal changes are needed and to test them in practice. As for alternative livelihood for the local fishing community where we (ZK and VÜ) promoted and established “Traditional Fishing Tourism” (pescatourism) model for Gökova Bay MPA (Fig. 14). The project has shown how unique the product is and how much it is welcomed by tourist agencies. The tour brochure, promotion, customer handling, various itineraries were all successfully designed and completed.

* <http://www.japan-guide.com/e/e2426.html>.

** http://www.gifucvb.or.jp/en/01_sightseeing/01_01.html.

*** http://www.wikiwand.com/en/Cormorant_fishing_on_the_Nagara_River.



Fig. 11. A wharf with three boats waiting for tourists in the Danube Delta (Romania) (Photo by Maciej Kiełpiński)



Fig. 12. Fishermen retrieving a fykenet in the Danube Delta (Romania)—seen from a pescatourist boat (Photo by Maciej Kiełpiński)



Fig. 13. Tourists in a boat approaching fishermen at work in the Danube Delta (Romania) (Photo by Jolanta Kiełpińska)

The inauguration trip was documented by German TV Deutsche Welle reporters (Fig. 15). However, the new regulation on local governance resulted the closing of our local partner, the Akyaka Municipality and all its assets and liabilities were legally transferred to its successor—the Muğla Greater Municipality. The Muğla Greater Municipality did not want to assume the responsibilities of its legal predecessor—the Akyaka Municipality, but it was very eager to take over its assets. It did not recognize the AKD–Akyaka Municipality project but it ceased its equipment. The pescatourism boat went through some modification and now used for garbage collection from other vessels.

Consequently, the tours were stopped a month after the first tour was launched and the entire project came to a halt. The Muğla Greater Municipality refused to cooperate and it became evident that the time and efforts invested in the project were wasted. Despite the positive arguments for implementation of pescatourism

in Turkey, this bad attitude of the local authorities was an external factor beyond expectations. Closing down a municipality—a main partner of the project—is something rarely experienced and the whole situation was certainly discouraging. The conversion of the project boat into a garbage vessel has a proverbial sense—if you show some enthusiasm and creativity, we (the bureaucrats) will show you where your place is...

Chances for implementing pescatourism in Algeria.

Algeria is a prospective tourist destination and pescatourism is a concept that can make the stay in sea resorts more attractive and on the other hand it can make a substantial contribute to incomes of fishermen and their families. On the southern shore of the Mediterranean, fishermen are much more numerous and younger than those on the northern shore. Unlike the North, pescatourism is not a matter of preserving a lost profession, but of maintaining a population on its territory. Consequently, its implementation requires a positive attitude of decision



Fig. 14. A former fisheries boat outfitted for the purpose of pescaturism in Akyaka (Gökova Bay), Turkey (Photo by Vahdet Ünal)



Fig. 15. Reporters of German TV Deutsche Welle interviewing pescatourists participating the inauguration trip in Gökova Bay, Turkey (Photo by Ozkan Anil)

makers, port authorities, taxation authorities, and changes in the mentality of fishermen.

Professional fisheries on the Algerian coast do not escape the problems found throughout the Mediterranean basin: fishery resources are increasingly difficult to catch; competition between small-scale fishers and trawlers sometimes leads to tensions; poaching is important and regular and involves conflict of use between fishers and sailors. To manage these issues, the National Park of Taza proposed to include in its 3th management plan the development of a sustainable tourism, including pescatourism activities, as an objective of the park in agreement with the fishermen.

A recent collaboration between the WWF Mediterranean, the French organization Marco Polo (Bellia 2016), the Taza National Park authority, and the local professional fisheries organisations allowed to implement such an activity to sustain local fishermen communities. According to the Italian and French experiments on pescatourism, they settled the first rules in Algeria. The fishermen of both boats of less than 12 meters and more than 12 meters practicing fishing with the use of trawl and seine have been candidates to the experiment with pescatourism aboard their ship. However, as elsewhere, the legal framework quickly became the main obstacle to this implementation. So, due to safety reasons, pescatourism on trawler boat larger than 12 m has been prohibited, as in France and in Italy. For the same reasons, this activity has also been prohibited on boats shorter than 4.80 m.

On 27 July 2016, following several ministerial meetings in Algiers, the executive decree n°. 16-203 (22 Chaoual 1437 on Algerian calendar) laying down the terms and conditions for the exercise of urban maritime transport and for-profit boating was published. It clearly mentions the pescatourism and defines the safety regulations for a good practice.

The adoption of a national regulation of pescatourism in Algeria and its implementation in the Taza National Park is then a great success. Algeria becomes the 3rd Mediterranean State to take legal measures in this area. It is the first for the South Mediterranean and the first of the African continent.

Chances for implementing pescatourism in Poland. The natural conditions of the southern Baltic Sea are totally different from those in Italy. First of all, Poland is in the temperate climate zone. Moreover, without the influence of the Gulf Stream, the sea is much colder than anywhere in Europe! The summer water temperatures oscillate around 17–18°C, with lows of 10–14°C (summer 2015)! The low-pressure systems, coming from the North Atlantic, pass through Denmark or Sweden and eventually go across the Baltic Sea. There are five low-pressure system pathways in this area. Baltic is a shallow body of water, with a mean depth of 55 m. Such physical conditions directly influence the weather in the region, which changes very quickly, unless stabilized by summer high-pressure systems of continental origin. Good, sunny weather can quickly turn

into a nasty cloudy and windy one. Shallow waters quickly produce steep and short waves.

One of the nice aspects of the Polish coast are its superb beaches composed of fine, soft, and white sand. The coastline is practically, almost uninterrupted, sandy beach, extending for some 500 km! This is a typical postglacial landscape. This feature is certainly perfect for tourists, but we need to remember that the sea bottom is equally sandy. Cobbles, boulders, and larger pieces of rocks occur rarely. Such substrate is quite unfavourable for marine life.

Baltic is an inland semi-closed body of water with episodic inflows from the North Sea through the Danish Straits. Therefore the water salinity near Polish coast ranges from 7‰ to 10‰*. The low salinity and the sandy seafloor directly translate into a poor biodiversity. The number of marine species is much lower than that in the full-salinity seas and those organisms, which adapted to Baltic conditions attains much smaller sizes. The principal fish species are the cod, the herring, the sprat, and the flounder. The population of cod, like elsewhere in its natural range, declined substantially within recent decades and its catch limits are very low now.

Within the last 20 years Polish fisheries fleet was drastically reduced, both in terms of active vessels and the catch size. This trend became even more evident before Poland joined the EU (Martín 2011). In December 2010 there were only 800 cutters, mostly old and poorly equipped. Boats shorter than 12 m constituted 75%. Larger vessels specialized in bottom trawling gears, while smaller, operating near shore, specialized in gillnets and traps. Larger ships are registered in ports of the Tricity (Gdynia–Sopot–Gdańsk). Even though their number made up only 6% of the Polish fisheries fleet, their tonnage constitutes some 60% of the total capacity of this fleet. On the other hand, boats from the regions of Szczecin and Elbląg constitute 28% of Polish fishing vessels, but they represent only 5% of its tonnage.

Major problems of Polish fishermen have been the catch limits, high fuel prices, aging of this professional group, and limited recruitment. Other factors are associated with the cultural context. After the Second World War, Poland, accordingly to the decisions of the allied forces from Yalta and Potsdam, lost its eastern territories and as a compensation received formerly German territories in the west. In the western part of the now-Polish coast the German population was replaced by Poles, often forcibly resettled from inland, eastern provinces. Some of those people, who settled on the seaside, had to learn the fisheries profession by themselves. The entire marine-fisheries tradition was lost with the displaced Germans. The situation was totally different in the eastern part of the Polish coast. It was inhabited by Kaszubians. This Slavic indigenous ethnic group has been for centuries associated with the sea and fisheries. For those people the sea is something more than just a source of income. It is an indispensable element of their culture and tradition.

* In the wake of the growing criticism of the Practical Salinity Scale concept (and especially PSU as a „unit”), *Acta Ichthyologica et Piscatoria* is in favour of expressing salinity in parts per thousand (‰), regardless if a direct or indirect method was employed to determine the water salinity.

When the European Union launched its buyback program for old fisheries vessels, much more people from the west coast gave up their boats and without a regret started new life. The stronger tradition in the east made the people more hesitant.

A good example of pescatourism from Italy and France gave some hope to fisheries communities of Kaszuby (eastern Polish coast). Forkiewicz and Wyszowska-Wróbel (2011) studied the feasibility of pescatourism in this country and defined strengths, weaknesses, opportunities, and threats of this new way of entertaining tourists. The strengths include the following points:

- Pescatourism is directly associated with traditional activities of the fisheries sector;
- It gives a chance for increasing the income of fisheries families, through diversification of the activities;
- The existing fisheries infrastructure and the boats can be used;
- Pro-ecologic character of this tourist service.

The weaknesses include the following factors:

- Very limited capacity of the existing boats to accommodate larger group, or even a family (the average boat can accept 1 or 2 people only in addition to the regular crew)
- The necessity of providing protective clothing, boots and personal safety devices;
- The necessity to invest money into proper adaptations (especially safety measures).
- Chances include:
- Pescatourism fits well into the existing development strategies of the coastal communities;
- Growing trend of pursuing active recreation;
- New trend of sport fishing becomes increasingly popular;
- A potential of acquiring funds from the EU for diversification of fisheries.

Threats include:

- Mental barriers against changing the traditional form of fisheries into the open one;
- The need for modifying the law and the regulation on fisheries in particular;
- Relatively low fish and seafood consumption in Poland (children in particular do not like to eat fish).

The principal legal obstacle for pescatourism in Poland is the Law on fisheries (Anonymous 2004). It prohibits any non-professionals on board of fisheries vessels involved in fish catching. On larger ships, not even all crew members are allowed on the trawling deck during the fishing operations. Only those with valid professional certificates can participate in deployment and retrieving of the fishing gear. In 1980, one of the authors (WP) worked for 6 months as a junior fisherman on a big Polish fisheries ship (in the fish processing plant). Because of the lack required safety certificate he could not actively participate in the fishing operations on the deck.

The changes are needed and they also need to be consistent with the safety standards and occupational

safety rules of the EU (Anonymous 1989) and the health concerns (Anonymous 1993). The new situation also calls for changes in the requirements of the technical inspection of the Polish Register of Shipping*, and the safety inspection of a Maritime Authority**, issuing safety cards. Additional analyses are needed to determine the details of the safety equipment of prospective pescatourist boats. Risk assessments are also needed for such boats (Anonymous 2003).

The first entity concerned about implementing pescatourism in Poland was the Local Fisheries Association “Pradolina Leby”***. It is located in the area of Kaszuby, known for its long maritime and fisheries traditions. Doing a feasibility study they interviewed 16 Polish fishermen (Forkiewicz and Wyszowska-Wróbel 2011). The majority of them did not know the name “pescatourism” but they acknowledged knowing the concept of it. It seems therefore essential to endorse the name and make it understandable to the general population and to prospective tourists, in particular. The interviewed fishermen recalled cases when they invited for their fishing trips vacation makers, just to make their stay on the seaside more attractive. They did not know that what they were doing was pescatourism and they were not aware of any legal or organizational aspects of it at that time. They also, even more often, invited anglers for shorter or longer trips. The latter activity is better known in Poland and it has a good potential as a tourist activity. It is therefore likely that with a proper marketing, the pescatourism could also become a desired way of recreation.

The interviewed fishermen postulated to distinguish three major groups of prospective tourists:

- Observer;
- Active observer, and
- Full participant.

The observer would only look without touching anything, while active observer would be expected not only to watch how the fishermen work, but could also learn more about fishing techniques and could help with selected activities. The full participant would be able to perform all duties as a regular crew member. Local fishermen, stationed in Leba, could accept from one to three visitors only (considering all safety measures and the specificity of the local weather conditions).

It is quite unclear how the pescatourism would be taxed and this has been also an important issue in other European countries. High tax rate could render the whole idea unprofitable.

The pescatourism activity is quite complex logistically. Forkiewicz and Wyszowska-Wróbel (2011) proposed an organizational model of such activity. The first step would be formal registration and insurance of the visitors. The next step would be boarding and distributing protective clothing and boots (suitable for given weather conditions). Each guest would be instructed about the occupational health and safety issues of a fisherman as well as the rescue procedures. Only

* *Polski Rejestr Statków.*

** *Urząd Morski.*

*** *Stowarzyszenie Lokalna Grupa Rybacka “Pradolina Leby”.*

after that the boat would be allowed to sail to the sea. During the cruise the tourists would be taught about traditions and customs of the local fisheries culture and the technical aspects of the fishing (boat design, operating of the fishing gear, etc.). The principal period of the trip would be the fishing process itself, where tourists could perform selected duties. The last step of the trip would be returning to the port and the summary of the activities performed. Shortly before disembarking the crew could show the docking manoeuvres. Accommodation and eating in fisherman's house could be an additional tourist product (ittitourism).

In September 2013, the activists of the Local Fisheries Association "Pradolina Łeby" organized a conference entitled "Pescatourism—a challenge and a chance".

It must be emphasized that there are some fishing methods that could be used in Poland, without any conflict with the existing regulations. Among them are beach seine catches, boats accompanying active fishing boats, and fishing under ice cover.

The beach seine has been used commercially in some Polish lakes and the seaside. After the fish stocks became less accessible, this method of catch lost its primary importance. In the 1970s the spawning concentrations of herring in Pomeranian Bay were so dense that even a dipnet could be used to catch them and the water was pale because of fish milt contents (Piotr Nowakowski, personal communication). Now the beach seine would not be profitable commercially but this should be reconsidered when pescatourism is involved. Moreover, some fishermen still use beach seines to catch small fish for bait. There is no regulation that would prohibit tourists standing on the beach and watching this type of catch. Such type of catch could, however, generate another problem—how to collect money from people standing of the beach. This would require additional regulations. The local communities could use beach seine catches to make their shores more attractive for tourists.

The idea of placing tourists on a separate boat would be an easy way of tricking existing regulations or their avoidance. Tourists on such a boat would have even better view on the fishing process and after that the two boats could moor alongside to facilitate seeing the catch.

Winters in the Mazurian lakes Districts or lakes near Augustów can be really strong. The ice cover is strong enough to support a car or group of people. The local fishermen, from time to time perform fishing under the ice with nets. This way of fishing is very spectacular. There is nothing wrong, in terms of regulations, for a tourist to stay nearby and watch the spectacle. If this kind of activity is properly advertised, it could receive some attention from tourist agencies.

RELATED FORMS OF TOURISM

Certain forms of fisheries, whaling, or hunting/acquisition of other aquatic life forms are gradually coming to an end and are now practiced in a limited extent and under immense public pressure. Despite that, they will always constitute an important legacy of human civilization. The

cultural, often rich, aspects of those activities are gradually becoming history along with their last representatives, growing old. Even though the object of the fishing is absent or under protection, people would still be interesting in learning how did it work? What were the practical details of the operation of those obsolete forms of fisheries? This is our obligation to preserve memory of our predecessors and their sea trade and to show it to new generations. Even without killing actual object of hunt—the fish, cetaceans, pinnipeds, or reptiles, we would be able to observe them live or to watch old capture methods, as they were practiced in the past. Some of such activities have a great tourist potential and they should also be considered pescatourism activities in a broader sense. It impossible to describe, in such a short paper, all such activities, but we would like to mention a few of them: the Zeesboot cruises (Germany), whaling boat operation (Mystic Seaport, CT, USA), actual whale watching, and watching of large marine turtles.

The Zeesboot* cruises. This tradition constitutes a remnant of the old fisheries tradition of Pomerania and is now cultivated only in Germany. The name *Zeese* has its roots in the Slavic language of medieval Pomeranians (as *seza*) and even now it is understandable in modern Polish (*cedzak*) as something used for sieving (feminine form *seza* became masculine form *cedzak*). At that time, the Pomeranian cities were populated predominantly by Germans, while rural areas were still inhabited by Slavic Pomeranians. The tradition of *Zeese* goes back to the 13th century, and what is really surprising, it was associated with the crusades (Piotr Nowakowski, personal communication). At that time, the Pope gradually increased the number of fast days (up to 123 days in a year) to save meat reserves for crusaders. To find alternative sources of proteins, people were forced to explore, more than ever before, the aquatic resources, such fish and shellfish. Until that time the fisheries was very primitive and inefficient. The new situation and the new demand opened the way for modifications of tools, gears, procedures, and methods. One of notable inventions of those times was *seza*. It was a kind of primitive bottom trawl without wings and any rigid elements. The major difference between *seza* and the modern otter trawl is that the latter is being towed behind the vessel, while the former—on the side of the boat drifting sideways with the wind. The mouth of the otter trawl is kept open by otter boards, while the horizontal spread of the *seza* mouth is maintained by the distance from the tips special spars protruding from the bow and stern and called *Zeesbäume*, where the trawl lines are attached (Fig. 16). Along with the *seza*, suitable sailing boats developed to operate it. Initially they were single-mast 12 m vessels, eventually reaching 22 m and a rigging of two masts. At that time they were the largest fishing boat in the southern Baltic Sea area (Stutz 2011). The *Zeesboote* could not be operated on an unpredictable, and choppy Baltic Sea, so their use was limited to the semi-enclosed bodies of water such as East German coastal lagoons (*Bodden*) and the Szczecin Lagoon.

The *Zeesboote* were used for fishing until the 1970s in East Germany, while in the Polish part of the Szczecin

* *Zeesboot* is a Plattdeutsch term; The respective high-German term is *Zessenboot* (singular) or *Zessenboote* (plural).



Fig. 16. A model representation of the Zeesboot fishing technique; Meeresmuseum Stralsund (Photo by Piotr Nowakowski)

Lagoon this tradition was lost immediately after the war. The number of currently registered *Zeesboote* in Germany approximates 100 (Stutz 2011). They typically have red sails. The majority of them are now private pleasure boats (“old-timer” yachts) but some of them are used to show tourists how the *Zeesboote* operated in the past as fishing vessels. This kind of tourist usage of *Zeesboote* is very popular in the coastal lagoons (*Bodden*), sheltered by the Fischland-Darß-Zingst Peninsula* (Mecklenburg-Vorpommern, Germany) and the ports best known for this kind of activity are: Wustrow, Barth, Dierhagen, and Althagen. Fewer *Zeesboote* can be also seen in the remaining *Bodden*, the Strelasund and the Szczecin Lagoon. The length of tourist cruises ranges from hour and a half to a whole day. There are still some old fishermen who remember the times of *Zeese* fishing and they help to maintain this tradition. Once a year four *Zeesboote* gather and they perform a fishing operation (Fig. 17) in one of the *Bodden*, exactly as instructed by old fishermen (Martin Rurik, personal communication). Because the local bodies of water are nature reserves the permission is issued only for one event scheduled for the second weekend of September (Volker Gries, personal communication).

The season for *Zeesboote* cruises for tourists lasts from May through October. An important item of this tradition is the regatta of those traditional boats (Fig. 18) being organized since 1909.

The tradition of wooden, fisheries sailboats, with red sails, have also been cultivated in the eastern part of the Polish coast (*Pomorze*), ethnically recognized as Kaszuby. Kaszubian fishing vessels were usually smaller than *Zeesboote* and used different fishing gear. They are now known as *pomeranka* and they also constitute an important part of the fisheries tradition of Poland. They participate in fishing folklore festivities, like Festiwal Dorsza Władysławowo* and take part in regatta.

Whaling boat operation shows in Mystic Seaport. The venue of those shows is an important marine museum,

situated in Mystic, Connecticut, USA. In fact it is the largest American marine museum. Among numerous boats and ships it features the *Charles W. Morgan*, the only surviving wooden sailing whaler, build in 1841. She is also the world’s oldest surviving merchant vessel. The ship is seaworthy and meticulously outfitted and equipped. It also has a set of completely equipped and ready-to-use whaling boats. The museum offers whaling boat shows to tourists. The crew of the boat is 6 or 8, including four (or six) oarsmen, a harpooner, and a helmsman. The boat is lowered to the water from the whaling ship and the crew show how the boat operates. The typical whaling boat was about 28 feet long and constructed of wood. It is relatively delicate to limit the craft’s weight. The crew of the Mystic Museum have mastered the boat operation and the show they give is quite impressive. The boat can accelerate at a surprising pace and they can quickly reach a speed of average modern-day motorboat! The speed watched from the shore is unbelievable. It was all needed to keep up with the fast moving whale and to eventually throw a harpoon at it.

The show is being given in the proximity of the wharf, where numerous tourists are able to watch it. The helmsman (actually the helmswoman) loudly instructs the public about all details of the boat operation, including the use of the harpoon. This live show preserves the old tradition of whaling. It is undoubtedly a value added to the regular museum activity and is something that can be remembered for decades. The senior author (WP) watched this spectacle in 1989.

Whale watching. Whales as the largest marines animals are quite spectacular when watched in their natural environment. The concept of whale watching dates back to the early 1950s, when it was first organized in southern California. By 2001, whale watching was carried out in 495 communities in 87 countries and overseas territories, plus Antarctica. In the early 2000s the number of whale watchers was increasing at 12 percentage points per year—three times faster than overall tourism numbers

* <http://zeesbootfahrten.de>.

** <http://festiwaldorsza.pl>.



Fig. 17. A fully equipped *Zeesboot* departing for a trip (NE Germany); Note black *Zeesbäume* (a single *Zeesbaum* parallel to the bowsprit and two other on the stern); nets ready to be deployed on the bow (starboard) (Photo by Martin Rurik, <http://zeesbootfahrten.de>)



Fig. 18. *Zeesboote* racing in a traditional regatta (NE Germany) (Photo by Volker Gries)

(Hoyt 2001). This segment of marine tourism has grown ever since. It is estimated that 13 million people took part in organized activities in 2008. Whale watching generates 2.1 billion USD annually, giving jobs to 13 000 people worldwide (O'Connor et al. 2009). Large marine mammals can be observed from boat, plane, as well as from the land. The organized trips last from one hour to two weeks. The growing popularity of whale watching has given arguments to the conservationists arguing that a whale is worth more alive and watched than dead (Hoyt 2001). In Europe the whale can be watched in coastal waters of Great Britain, Ireland, Iceland, Norway, Portugal, Spain, and France. The Azores and Iceland are often listed among the ten best whale-watching sites.

There are usually no specific regulations limiting the whale watching, but certain countries introduce rules of

good conduct to minimize the effect of mass tourism on the observed sea mammals. The potential of this activity is much larger than that of pescatourism, therefore we have only outlined the most important facts related to it.

Turtle watching. Observation of live sea turtles coming to the site of their origin, and especially egg deposition and eventually hatching, can be an unforgettable experience. Such areas are usually in some extend protected and tourist movement is somehow regulated and limited. In addition to land observation and important alternative to see the turtles in water are boat cruises. The best know sites for turtle watching are: island of Pulau Tioman (Malaysia), Tortuguero National Park (Costa Rica), Kosgoda (Sri Lanka), Zakynthos Island (Greece), village of Ras Al Jinz (Oman), Puerto Vallarta (Mexico), Iztuzu (Turkey), Tofo Beach (Mozambique), Port Barton (Philippines). The

* <http://www.worldwildlife.org/pages/infographic-sea-turtles>.

** http://www.explore-zakynthos.com/zante_turtle_spotting_in_zakynthos_boat_trips.htm.

majority of seven big sea turtle species* are endangered and their watching by tourists can increase public awareness. In Zakynthos, Greece, boat trips are organized to spot large turtles swimming near shore**.

OBJECTIVES AND LEGISLATIVE CONSTRAINTS

According this review by European and non European countries, and following Saba (2015), we could summarize the 10 main objectives of pescatourism activities as (1) preserving fish stocks and marine and coastal environments throughout promotion of sustainable harvesting activities, (2) maintaining stable employment, (3) generating new revenues, (4) involving women, young and old people in the fisheries communities throughout employment, (6) recovering the historical memory of the craft and pass it on, (7) enhancing the social and professional role of the fisherman/-woman, (8) promoting the consumption of local and traditional foods, (9) using new technology to enhance the transfer of knowledge, and (10) increasing public awareness on coastal biodiversity protection and management.

However, implementation of pescatourism in European or Mediterranean countries encounters many legislative constraints. Firstly, it should be emphasized that fisheries is one of the most risky professions. The risk of accident is 2.4 times higher than the mean value of all industrial sectors of the EU (Anonymous 2003). The major threat is falling overboard, which contributes to many deaths (life vests minimize the risk). Particularly dangerous is recovering the net. It may result in entangling into the lines or net or an injury inflicted by moving objects. Adverse weather condition increase the risk of accident and therefore careful planning of pescatourism trip would be essential. Safety remains the principal concern of maritime authorities in the EU countries and also elsewhere. The European Agency for Occupational Health and Safety (EU-OSHA) developed the checkout list suitable for determining the factors compromising the safety (Anonymous 2003). The tourist need a space specially defined for them and this space should be distinctly separated from any elements of the fishing gear that could potentially compromise their safety. Also the number of tourists allowable on board of each vessel should be defined, as well as the number of crew needed to manage such number of visitors.

Another problematic issue is proper taxation. Many countries give tax credits to their fishermen, but it had been currently disputed if fishermen rendering tourist services are still entitled to such tax rebates? If not—then such activity should be recorded on separate revenue accounts. This would call for the need to modify also the taxation laws. Such situation could effectively discourage fishermen from this type of activity. A better solution would be a tax exemption for fishermen hosting tourists for a period needed for stabilizing this type of activity

(e.g., 10 years) or introducing tax exemptions, such those in France (if the annual income from pescatourism does not exceed certain limit and constituted less than 50% of income).

SUMMARY AND DISCUSSION

Studying chances for finding life forms in space, astrobiologists have coined the term “the goldilocks zone” otherwise known as “circumstellar habitable zone” (CHZ). It denotes zones in outer space where the life (in our understanding) is possible provided that certain physical parameters are met. According to various estimates in our solar system only the Earth’s orbit (and possibly Venus’s) fit into the definition of the CHZ—in contrast to some 40 billion such planets in the Milky Way (Petigura et al. 2013).

Although the development of pescatourism is theoretically possible in all European countries—the climate and other natural conditions make southern Europe most fit and attractive for this kind of tourist activity. Such “goldilocks zone” of pescatourism in Europe seems to be the perimeter of the Mediterranean Sea. By analogy to the solar system where life first appeared on Earth—the pescatourism first appeared in Italy—the country of optimal climate and traditions.

By the optimal climate we also understand different risk factors (e.g., associated with unpredictable weather or personal safety). Such factors influence decisions of the authorities on various levels and the supreme argument for them is the safety of tourists and to a lesser extend of fishermen and the tourists. Therefore the relevant regulations will always be more strict in northern countries than they are in the southern Mediterranean countries. For example in Sweden a prospective ship suitable for pescatourism should be outfitted to meet both standards—those for fisheries boats and those for passenger ships! The Mediterranean and the Baltic Sea differ not only in the number sunny days per season, but also in the number of days with flat seas (less than 2 degrees in Beaufort scale). This may directly affect business plans of local fishermen involved in pescatourism. Therefore we believe that each European country should independently define its pescatourism standards adjusting them to local conditions and the cultural heritage background. The *Zeesboote* tourism in Germany is a good example of such attitude. The European countries having whaling traditions could adopt good experience of shows from the Mystic Seaport Museum, USA. The tradition of cormorant fishing was once popular in some areas of Europe. For example it has been practiced in Lake Dorian in the FYR of Macedonia**. Unfortunately, this tradition is gradually dying out, along with its aging representatives. It is an important part of European fisheries tradition and should be preserved (regardless of possible opposition from animal right movements).

* “Goldilocks zone is a metaphor of the children’s fairy tale of *Goldilocks and the three bears*, in which a little girl chooses from sets of three items, ignoring the ones that are too extreme (large or small, hot or cold, etc.), and settling on the one in the middle, which is *just right*” (Wikipedia).

** Because of the on-going dispute with Greece over the use of the name “Macedonia”, a provisional name FYROM (the Former Yugoslav Republic of Macedonia) has been used in the European Union.

The pilot project *Pescatourisme 83* is an excellent example of implementation of pescatourism. Similar procedures could be followed to start this form of tourism in other countries. The European Maritime and Fisheries Fund (2014–2020) has been supporting initiatives aimed at development of fisheries-dependent areas. This covers also the issues of diversification, including those investments in boats that could contribute to income diversification. The respective authorities of countries that would be interested in making pescatourism legal, should in the first place create the legal framework covering this form of tourism. Among other issues, such legal framework should include: the rules and standards of safety, technical requirement of boats suitable for accepting tourists, the allowable number of tourists in relation to the boat size, the crew number needed for accepting a defined number of visitors. A key issue should also be defining the tax rate linked to this kind of service. In many countries fishermen benefit from tax reductions and tax exemptions, but usually the regulations do not cover the associated tourist services. An important step would be also awareness action among the fishermen and their families to make the complexity of pescatourism more understandable. Designing a complex tourist product considering the regional specificity and the associated complementary actions would make the offer more attractive for prospective tourists.

It is evident based on Italian and French examples that pescatourism activity can bring about various profits. Among benefactors are the coastal (fisheries) communities, local authorities and self-governments, and obviously tourists. Additional incomes for the fishermen and the region are obvious advantages. Stimulating additional activity of the fisheries sector, and supplementary usage of the local infrastructure and resources would be an economic benefit. The broadening of the touristic product offered in a coastal region gives an advantage in a broader sense and brings about additional tourists, attracted by the new services. The learning by a tourist about the specificity of the fisherman's work and about the difficulties faced by entire sector would be a social benefit in a wider sense. The main objective of the fisher who performs pescatourism is not catching fish as much as he can. On the contrary, pescatourist operation is usually (but not always) associated with limited catch. This is another benefit—of the environmental importance. Promoting such sustainable form of fisheries and the dietary values of seafood may constitute an advantage for public health. Promoting the regional and fisheries traditions, having economical, social and touristic potential is undoubtedly an important cultural advantage of pescatourism. Regions with fisheries tradition face socio-economic challenges and require actions that could improve the living conditions of fishermen and their families. Pescatourism increases the multipurpose usage of fisheries households. In a recent synthesis about the Mediterranean marine protected areas, the PISCO team and Mediterranean scientists and managers highlighted that pescatourism could be a relevant strategy bridging the short-term costs to gain long-term benefits (Anonymous 2016c). Indeed,

MPAs sitting involve a restricting access to some areas at sea that may have negative impacts, at least initially, on users like fishers. This can affect livelihoods and potentially increase fishing effort and impact in places where fishing is still allowed. Fishers might need to travel farther and spend more money to reach fishing grounds. In some cases, the benefits of MPAs may go to different people than those who bear the costs. Planning for and addressing these short-term losses is critical to achieve long-term benefits, gain support from users, and increase compliance. Globally, diverse strategies have been used to reduce short-term costs. Innovative activities like pescatourism allow clearly to diversify the economical incomes of fishers while maintaining a cultural and historical activity.

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